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=> s B33(w)patatin
L1 18 B33(W) PATATIN

=> d 11 1-18

L1 ANSWER 1 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:539152 BIOSIS
DN PREV200100539152
TI Simultaneous antagonistic modulation of enzyme activities in transgenic
plants through the expression of a chimeric transcript.
AU Fernie, Alisdair R. (1); Roessner, Ute; Leisse, Andrea; Lubeck, Jens;
Trethewey, Richard N.; Willmitzer, Lothar
CS (1) Max-Planck-Institut fuer Molekulare Pflanzenphysiologie, Am
Muehlenberg 1, 14476, Golm: fernie@mpimp-golm.mpg.de Germany
SO Plant Physiology and Biochemistry (Paris), (October, 2001) Vol. 39, No.
10, pp. 825-830. print.
ISSN: 0981-9428.
DT Article
LA English
SL English

L1 ANSWER 2 OF 18 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
AN 2001:32974238 BIOTECHNO
TI Simultaneous antagonistic modulation of enzyme activities in transgenic
plants through the expression of a chimeric transcript
AU Fernie A.R.; Roessner U.; Leisse A.; Lubeck J.; Trethewey R.N.;
Willmitzer L.
CS A.R. Fernie, M.-Planck-Inst. Molek. Pflanzenphys., Am Muhlenberg 1, 14476
Golm, Germany.
E-mail: fernie@mpimp-golm.mpg.de
SO Plant Physiology and Biochemistry, (2001), 39/10 (825-830), 34
reference(s)
CODEN: PPBIEX ISSN: 0981-9428
DT Journal; Article
CY France
LA English
SL English

L1 ANSWER 3 OF 18 CABA COPYRIGHT 2002 CABI
AN 2002:5806 CABA
DN 20013143024
TI Simultaneous antagonistic modulation of enzyme activities in transgenic
plants through the expression of a chimeric transcript
AU Fernie, A. R.; Roessner, U.; Leisse, A.; Lubeck, J.; Trethewey, R. N.;
Willmitzer, L.
CS Max-Planck-Institut fur Molekulare Pflanzenphysiologie, Am Muhlenberg 1,
14476 Golm, Germany.
SO Plant Physiology and Biochemistry, (2001) Vol. 39, No. 10, pp. 825-830. 34
ref.
ISSN: 0981-9428
DT Journal
LA English

L1 ANSWER 4 OF 18 CABA COPYRIGHT 2002 CABI
AN 2000:123163 CABA
DN 20001614169
TI Transformed potato plants as a model for studying the hormonal and
carbohydrate regulation of tuberization
AU Aksenova, N. P.; Konstantinova, T. N.; Golyanovskaya, S. A.; Kossmann, J.;
Willmitzer, L.; Romanov, G. A.
CS Timiryazev Institute of Plant Physiology, Russian Academy of Sciences,
Botanicheskaya ul. 35, Moscow 127276, Russia.
SO Russian Journal of Plant Physiology, (2000) Vol. 47, No. 3, pp. 370-379.
translated from Fiziologiya Rastenii (2000) 47 (3) 420-430 (Ru). 34 ref.
ISSN: 1021-4437
DT Journal
LA English

L1 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 2001:738080 CAPLUS
TI Simultaneous antagonistic modulation of enzyme activities in transgenic
plants through the expression of a chimeric transcript
AU Fernie, A. R.; Roessner, U.; Leisse, A.; Lubeck, J.; Trethewey, R. N.;
Willmitzer, L.
CS Max-Planck-Institut fur Molekulare Pflanzenphysiologie, Golm, 14476,
Germany
SO Plant Physiol. Biochem. (Paris, Fr.) (2001), 39(10), 825-830
CODEN: PPBIEX; ISSN: 0981-9428
PB Editions Scientifiques et Medicales Elsevier
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2002 ACS

AN 2000:397804 CAPLUS
 DN 133:132551
 TI Transformed potato plants as a model for studying the hormonal and carbohydrate regulation of tuberization
 AU Aksenova, N. P.; Konstantinova, T. N.; Golyanovskaya, S. A.; Kossmann, J.; Willmitzer, L.; Romanov, G. A.
 CS Timiryazev Institute of Plant Physiology, Russian Academy of Sciences, Moscow, 127276, Russia
 SO Russ. J. Plant Physiol. (2000), 47(3), 370-379
 CODEN: RJPPE2; ISSN: 1021-4437
 PB MAIK Nauka/Interperiodica Publishing
 DT Journal
 LA English
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2002 ACS
 AN 1998:388622 CAPLUS
 DN 129:37225
 TI NAD-malic enzyme gene recombinant constructions for transgenic potato plants having increased starch content
 IN Leaver, Christopher John; Hill, Steven Arthur; Jenner, Helen Louise; Winning, Brenda May
 PA Isis Innovation Limited, UK; Leaver, Christopher John; Hill, Steven Arthur; Jenner, Helen Louise; Winning, Brenda May
 SO PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823757	A1	19980604	WO 1997-GB3245	19971127
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9851276	A1	19980622	AU 1998-51276	19971127
	AU 729089	B2	20010125		
	EP 941340	A1	19990915	EP 1997-945952	19971127
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO			
	BR 9713551	A	20000125	BR 1997-13551	19971127
	CN 1245535	A	20000223	CN 1997-181491	19971127
	JP 2001504351	T2	20010403	JP 1998-524427	19971127
PRAI	GB 1996-24685	A	19961127		
	WO 1997-GB3245	W	19971127		

L1 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2002 ACS
 AN 1998:175323 CAPLUS
 DN 128:189192
 TI Plant promoters specific for sink organ expression of genes
 IN Rocha-Sosa, Mario; Sonnewald, Uwe; Frommer, Wolf-bernd; Willmitzer, Lothar; Stratmann, Marina
 PA Hoechst Schering Agrevo G.m.b.H., Germany
 SO U.S., 16 pp. Cont.-in-part of U.S. 5,436,393.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5723757	A	19980303	US 1995-448110	19950523
	DE 3843627	A1	19900705	DE 1988-3843627	19881221
	US 5436393	A	19950725	US 1992-995911	19921222
PRAI	DE 1988-3843627		19881221		
	US 1989-454363		19891221		
	US 1992-995911		19921222		

L1 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2002 ACS

AN 1997:736269 CAPLUS

DN 127:357096

TI Transgenic potato manufacturing high molecular inulin for industrial use

IN Heyer, Arnd G.; Wendenburg, Regina

PA Suedzucker Aktiengesellschaft Mannheim/Ochsenfurt, Germany; KWS
Kleinwanzlebener Saatzucht Ag Vorm. Rabbethge & Giesecke

SO Ger. Offen., 13 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19617687	A1	19971106	DE 1996-19617687	19960503
	DE 19617687	C2	20001116		
	WO 9742331	A1	19971113	WO 1997-EP2195	19970429
	W: AU, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9727741	A1	19971126	AU 1997-27741	19970429
	AU 718897	B2	20000420		
	EP 944727	A1	19990929	EP 1997-921819	19970429
	R: AT, BE, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, IE, FI				
	JP 2001517930	T2	20011009	JP 1997-539497	19970429
	US 6255562	B1	20010703	US 1998-180143	19981103
PRAI	DE 1996-19617687	A	19960503		
	WO 1997-EP2195	W	19970429		

L1 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS

AN 1994:293011 CAPLUS

DN 120:293011

TI Genes for levan synthetic enzymes of plants and transgenic plants
expressing these genes

IN Roeber, Manuela; Geier, Gebhardt; Geider, Klaus; Willmitzer, Lothar

PA Institut fuer Genbiologische Forschung Berlin GmbH, Germany

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4227061	A1	19940217	DE 1992-4227061	19920812
	WO 9404692	A1	19940303	WO 1993-EP2110	19930809
	W: AU, CA, HU, JP, KR, RU, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 663956	A1	19950726	EP 1994-908166	19930809
	HU 70977	A2	19951128	HU 1995-400	19930809
	JP 08500015	T2	19960109	JP 1993-505845	19930809
	AU 682472	B2	19971009	AU 1993-49468	19930809
	US 5792923	A	19980811	US 1995-381936	19950209
	US 6028249	A	20000222	US 1997-943374	19971003
	AU 9851084	A1	19980319	AU 1998-51084	19980109
	AU 725657	B2	20001019		
PRAI	DE 1992-4227061	A	19920812		

WO 1993-EP2110 W 19930809

L1 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1991:18965 CAPLUS
DN 114:18965
TI Potato tuber-specific transcriptional unit
IN Rocha-Sosa, Mario; Sonnewald, Uwe; Frommer, Wolf Bernd; Willmitzer,
Lothar; Stratmann, Marina
PA Institut fuer Genbiologische Forschung Berlin G.m.b.H., Fed. Rep. Ger.
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 375092	A1	19900627	EP 1989-250117	19891218
	EP 375092	B1	19960124		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	DE 3843627	A1	19900705	DE 1988-3843627	19881221
	AT 133448	E	19960215	AT 1989-250117	19891218
	ES 2086315	T3	19960701	ES 1989-250117	19891218
	DK 8906515	A	19900622	DK 1989-6515	19891220
	CA 2006454	AA	19900621	CA 1989-2006454	19891221
	JP 02283276	A2	19901120	JP 1989-329772	19891221
	JP 2993979	B2	19991227		
	IL 92838	A1	19971120	IL 1989-92838	19891221
PRAI	DE 1988-3843627		19881221		

L1 ANSWER 12 OF 18 Elsevier BIOBASE COPYRIGHT 2002 Elsevier Science B.V.
AN 2001237924 ESBIIOBASE
TI Simultaneous antagonistic modulation of enzyme activities in transgenic
plants through the expression of a chimeric transcript
AU Fernie A.R.; Roessner U.; Leisse A.; Lubeck J.; Trethewey R.N.;
Willmitzer L.
CS A.R. Fernie, M.-Planck-Inst. Molek. Pflanzenphys., Am Muhlenberg 1, 14476
Golm, Germany.
E-mail: fernie@mpimp-golm.mpg.de
SO Plant Physiology and Biochemistry, (2001), 39/10 (825-830), 34
reference(s)
CODEN: PPBIEX ISSN: 0981-9428
DT Journal; Article
CY France
LA English
SL English

L1 ANSWER 13 OF 18 IFIPAT COPYRIGHT 2002 IFI
AN 2628117 IFIPAT;IFIUDB;IFICDB
TI POTATO TUBER SPECIFIC TRANSCRIPTIONAL REGULATION; DNA EXPRESSION CASSETTE
SEQUENCE
IN Frommer Wolf-Bernd (DE); Rocha-Sosa Mario (MX); Sonnewald Uwe (DE);
Stratmann Marina (DE); Willmitzer Lothar (DE)
PA Institut fur Genbiologische Forschung DE (36617)
PI US 5436393 19950725 (CITED IN 009 LATER PATENTS)
AI US 1992-995911 19921222
RLI US 1989-454363 19891221 CONTINUATION ABANDONED
PRAI DE 1988-3843627 19881221
FI US 5436393 19950725
DT UTILITY; REASSIGNED
FS CHEMICAL
CLMN 7
GI 3 Drawing Sheet(s), 3 Figure(s).

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 CP Copyright .COPYRGT. 2001 INIST-CNRS. All rights reserved.
 TIEN Simultaneous antagonistic modulation of enzyme activities in transgenic
 plants through the expression of a chimeric transcript
 AU FERNIE Alisdair R.; ROESSNER Ute; LEISSE Andrea; LUBECK Jens; TRETHEWEY
 Richard N.; WILLMITZER Lothar
 CS Max-Planck-Institut fuer Molekulare Pflanzenphysiologie, Am Muehlenberg
 1, 14476 Golm, Germany, Federal Republic of
 SO Plant physiology and biochemistry : (Paris), (2001), 39(10), 825-830, 34
 refs.
 ISSN: 0981-9428 CODEN: PPBIEX
 DT Journal
 BL Analytic
 CY France
 LA English
 AV INIST-10570, 354000096011220010

L1 ANSWER 15 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
 AN 2001:856980 SCISEARCH
 GA The Genuine Article (R) Number: 484KT
 TI Simultaneous antagonistic modulation of enzyme activities in transgenic
 plants through the expression of a chimeric transcript
 AU Fernie A R (Reprint); Roessner U; Leisse A; Lubeck J; Trethewey R N;
 Willmitzer L
 CS Max Planck Inst Mol Pflanzenphysiol, Muhlenberg 1, D-14476 Golm, Germany
 (Reprint); Max Planck Inst Mol Pflanzenphysiol, D-14476 Golm, Germany
 CYA Germany
 SO PLANT PHYSIOLOGY AND BIOCHEMISTRY, (OCT 2001) Vol. 39, No. 10, pp.
 825-830.
 Publisher: GAUTHIER-VILLARS/EDITIONS ELSEVIER, 23 RUE LINOIS, 75015 PARIS,
 FRANCE.
 ISSN: 0981-9428.
 DT Article; Journal
 LA English
 REC Reference Count: 34
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 16 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
 AN 2000:449341 SCISEARCH
 GA The Genuine Article (R) Number: 322VU
 TI Transformed potato plants as a model for studying the hormonal and
 carbohydrate regulation of tuberization
 AU Aksenova N P (Reprint); Konstantinova T N; Golyanovskaya S A; Kossmann J;
 Willmitzer L; Romanov G A
 CS RUSSIAN ACAD SCI, KA TIMIRYAZEV PLANT PHYSIOL INST, BOT SKAYA UL 35,
 MOSCOW 127276, RUSSIA (Reprint); MAX PLANCK INST MOL PLANT PHYSIOL,
 D-14476 POTSDAM, GERMANY
 CYA RUSSIA; GERMANY
 SO RUSSIAN JOURNAL OF PLANT PHYSIOLOGY, (MAY-JUN 2000) Vol. 47, No. 3, pp.
 370-379.
 Publisher: MAIK NAUKA/INTERPERIODICA, C/O KLUWER ACADEMIC-PLENUM
 PUBLISHERS, 233 SPRING ST, NEW YORK, NY 10013-1578.
 ISSN: 1021-4437.
 DT Article; Journal
 FS AGRI
 LA English
 REC Reference Count: 34
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 17 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
 AN 1999:563652 SCISEARCH
 GA The Genuine Article (R) Number: 216NQ
 TI In vitro growth and tuber formation by transgenic potato plants harboring
 rolC or rolB genes under control of the patatin promoter

AU Aksenova N P (Reprint); Konstantinova T N; Golyanovskaya S A; Schmulling
 T; Kossmann J; Willmitzer L; Romanov G A
 CS RUSSIAN ACAD SCI, TIMIRYAZEV INST PLANT PHYSIOL, BOTANICHESKAYA UL 35,
 MOSCOW 127276, RUSSIA (Reprint); UNIV TUBINGEN, TUBINGEN, GERMANY; INST
 GENET BIOL RES, BERLIN, GERMANY
 CYA RUSSIA; GERMANY
 SO RUSSIAN JOURNAL OF PLANT PHYSIOLOGY, (JUL-AUG 1999) Vol. 46, No. 4, pp.
 513-519.
 Publisher: MAIK NAUKA/INTERPERIODICA, C/O PLENUM/CONSULTANTS BUREAU 233
 SPRING ST, NEW YORK, NY 10013.
 ISSN: 1021-4437.
 DT Article; Journal
 FS AGRI
 LA English
 REC Reference Count: 28
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 18 OF 18 USPATFULL
 AN 95:67381 USPATFULL
 TI Potato tuber specific transcriptional regulation
 IN Rocha-Sosa, Mario, Cuernavaca, Mexico
 Sonnewald, Uwe, Berlin, Germany, Federal Republic of
 Frommer, Wolf-Bernd, Berlin, Germany, Federal Republic of
 Willmitzer, Lothar, Berlin, Germany, Federal Republic of
 Stratmann, Marina, Berlin, Germany, Federal Republic of
 PA Institut fur Genbiologische, Germany, Federal Republic of (non-U.S.
 corporation)
 PI US 5436393 19950725
 AI US 1992-995911 19921222 (7)
 RLI Continuation of Ser. No. US 1989-454363, filed on 21 Dec 1989, now
 abandoned
 PRAI DE 1988-38436272 19881221
 DT Utility
 FS Granted
 LN.CNT 733
 INCL INCLM: 800/205.000
 INCLS: 800/DIG.042; 435/172.300; 435/240.400; 536/024.100
 NCL NCLM: 800/287.000
 NCLS: 536/024.100; 800/317.200
 IC [6]
 ICM: A01H001-04
 ICS: C12N015-00; C12N005-00; C07H021-04
 EXF 435/69.1; 435/70.1; 435/172.3; 435/240.4; 435/252.2; 435/252.3;
 435/320.1; 536/24.1; 800/205; 800/DIG.42; 800/DIG.43
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

s alcA(w)alcR
L2 28 ALCA(W) ALCR

=> d 1-28 au ti

L2 ANSWER 1 OF 28 AGRICOLA

AU Felenbok, B.

TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA**-**alcR** system as a tool for the expression of recombinant proteins.

L2 ANSWER 2 OF 28 BIOBUSINESS COPYRIGHT 2002 BIOSIS

AU FELENBOK B

TI The ethanol utilization regulon of Aspergillus nidulans: The **alcA**-**alcR** system as a tool for the expression of recombinant proteins.

L2 ANSWER 3 OF 28 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AU FELENBOK B

TI THE ETHANOL UTILIZATION REGULON OF ASPERGILLUS-NIDULANS THE **ALCA**-**ALCR** SYSTEM AS A TOOL FOR THE EXPRESSION OF RECOMBINANT PROTEINS.

L2 ANSWER 4 OF 28 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AU DOY C H; PATEMAN J A; OLSEN J E; KANE H J; CREASER E H

TI GENOMIC CLONES OF ASPERGILLUS-NIDULANS CONTAINING ALC-A THE STRUCTURAL GENE FOR ALCOHOL DEHYDROGENASE AND ALC-R A REGULATORY GENE FOR ETHANOL METABOLISM.

L2 ANSWER 5 OF 28 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.

AU Felenbok B.

TI The ethanol utilization regulon of Aspergillus nidulans: The **alcA**-**alcR** system as a tool for the expression of recombinant proteins

L2 ANSWER 6 OF 28 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.

AU Doy C.H.; Pateman J.A.; Olsen J.E.; et al.

TI Genomic clones of Aspergillus nidulans containing alcA, the structural gene for alcohol dehydrogenase and alcR, a regulatory gene for ethanol metabolism

L2 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Jepson, Ian; Greenland, Andrew James; Caddick, Mark Xavier; Tomsett, Arthur Brian

TI Protein/alcohol or protein/ketone combination inducible gene expression system for use in plants

L2 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Clarke, Eric Daniel; Chrystal, Ewan James Turner; Jepson, Ian; Paine, Jacqueline Ann Mary

TI Ester/alcohol system for inducible gene expression system for use in plants

L2 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Jepson, Ian; Chu, Chengcai; Qu, Nan; Sonnewald, Uwe

TI Method of increasing plant yield by selectively controlling the expression of DNA sequences coding for proteins involved in the transport, metab. and uptake of sucrose

L2 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Jepson, Ian; Ebnet, Marcus; Sonnewald, Uwe

TI Genetic method for controlling sprouting in potato tubers

L2 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Salter, Michael G.; Paine, Jacqueline A.; Riddell, Kay V.; Jepson, Ian;
Greenland, Andrew J.; Caddick, Mark X.; Tomsett, A. Brian

TI Characterization of the ethanol-inducible alc gene expression system for
transgenic plants

L2 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Lenouvel, Francois; Nikolaev, Igor; Felenbok, Beatrice

TI In vitro recognition of specific DNA targets by AlcR, a zinc binuclear
cluster activator different from the other proteins of this class

L2 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Jepson, Ian

TI Chemically inducible plant expression vectors encoding herbicide
resistance in transgenic plants

L2 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2002 ACS

IN Caddick, Mark Xavier; Greenland, Andrew James; Riddell, Kay Victoria;
Schuch, Wolfgang Walter; Tomsett, Arthur Brian

TI Chemically inducible expression cassettes for plants

L2 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Felenbok, Beatrice

TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA**
-alcR system as a tool for the expression of recombinant
proteins

L2 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Pateman, John A.; Doy, Colin H.; Olsen, Jane E.; Kane, Heather J.;
Creaser, Ernest J.

TI Molecular analysis of alcohol metabolism in Aspergillus

L2 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Doy, Colin H.; Pateman, John A.; Olsen, Jane E.; Kane, Heather J.;
Creaser, Ernest H.

TI Genomic clones of Aspergillus nidulans containing alcA, the structural
gene for alcohol dehydrogenase and alcR, a regulatory gene for ethanol
metabolism

L2 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Pateman, J. A.; Doy, C. H.; Olsen, Jane; Kane, Heather

TI Genes for alcohol utilization in the lower eukaryote Aspergillus nidulans

L2 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2002 ACS

AU Pateman, J. A.; Doy, C. H.; Olsen, J. E.; Norris, U.; Creaser, E. H.;
Hynes, M.

TI Regulation of alcohol dehydrogenase (ADH) and aldehyde dehydrogenase
(AldDH) in Aspergillus nidulans

L2 ANSWER 20 OF 28 CIN COPYRIGHT 2002 ACS

TI April Patent Digest

L2 ANSWER 21 OF 28 CROPU COPYRIGHT 2002 DERWENT INFORMATION LTD

IN Jepson I

TI A chemically inducible cassette for expressing herbicide resistance gene
in plants and derived plants, particularly for resistance to glyphosate,
avoids constitutive expression and minimizes development of herbicide
tolerant weeds.

L2 ANSWER 22 OF 28 FSTA COPYRIGHT 2002 IFIS

AU Felenbok, B.

TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA**
-alcR system as a tool for the expression of recombinant
proteins.

L2 ANSWER 23 OF 28 LIFESCI COPYRIGHT 2002 CSA
AU Pateman, J.A.; Doy, C.H.; Olsen, J.E.; Kane, H.J.; Creaser, E.H.;
Timberlake, W.E. [editor]
TI Molecular analysis of alcohol metabolism in *Aspergillus* .
MOLECULAR GENETICS OF FILAMENTOUS FUNGI.

L2 ANSWER 24 OF 28 LIFESCI COPYRIGHT 2002 CSA
AU Doy, C.H.; Pateman, J.A.; Olsen, J.E.; Kane, H.J.; Creaser, E.H.
TI Genomic clones of *Aspergillus nidulans* containing *alcA* , the structural
gene for alcohol dehydrogenase and *alcR* , a regulatory gene for ethanol
metabolism.

L2 ANSWER 25 OF 28 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
AU FELENBOK B.
TIEN The ethanol utilization regulon of *Aspergillus nidulans* : the
alcA-alcR system as a tool for the expression of
recombinant proteins

L2 ANSWER 26 OF 28 SCISEARCH COPYRIGHT 2002 ISI (R)
AU FELENBOK B (Reprint)
TI THE ETHANOL UTILIZATION REGULON OF ASPERGILLUS-NIDULANS - THE **ALCA**
-ALCR SYSTEM AS A TOOL FOR THE EXPRESSION OF RECOMBINANT
PROTEINS

L2 ANSWER 27 OF 28 USPATFULL
IN Greenland, Andrew James, Bracknell, Great Britain
Thomas, Didier Rene Philippe, Bracknell, Great Britain
Jepson, Ian, Bracknell, Great Britain
TI DNA constructs comprising protease encoding sequences or inhibitors
thereof

L2 ANSWER 28 OF 28 USPATFULL
IN Meyerowitz, Elliot M., Pasadena, CA, United States
Clark, Steven E., Ann Arbor, MI, United States
Williams, Robert W., Pasadena, CA, United States
TI Plant clavatal nucleic acids, transformed plants, and proteins

=> d 7-11 13-15

L2 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 2001:101335 CAPLUS
DN 134:158477
TI Protein/alcohol or protein/ketone combination inducible gene expression
system for use in plants
IN Jepson, Ian; Greenland, Andrew James; Caddick, Mark Xavier; Tomsett,
Arthur Brian
PA Zeneca Limited, UK
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2001009357	A2	20010208	WO 2000-GB2750	20000718
	WO 2001009357	A3	20011011		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
	HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
	LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				
	SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,				
	YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1999-18154 A 19990802

L2 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2002 ACS

AN 2000:535295 CAPLUS

DN 133:145902

TI Ester/alcohol system for inducible gene expression system for use in plants

IN Clarke, Eric Daniel; Chrystal, Ewan James Turner; Jepson, Ian; Paine, Jacqueline Ann Mary

PA Zeneca Limited, UK

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044917	A1	20000803	WO 1999-GB4348	19991222
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1151120	A1	20011107	EP 1999-962394	19991222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9917010	A	20020122	BR 1999-17010	19991222
PRAI GB 1999-2234	A	19990201		
WO 1999-GB4348	W	19991222		

OS MARPAT 133:145902

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2002 ACS

AN 1999:388312 CAPLUS

DN 131:40548

TI Method of increasing plant yield by selectively controlling the expression of DNA sequences coding for proteins involved in the transport, metab. and uptake of sucrose

IN Jepson, Ian; Chu, Chengcai; Qu, Nan; Sonnewald, Uwe

PA Zeneca Limited, UK

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9929881	A1	19990617	WO 1998-GB3687	19981210
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

AU 9914961 A1 19990628 AU 1999-14961 19981210
 EP 1036184 A1 20000920 EP 1998-959028 19981210
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI
 JP 2001526042 T2 20011218 JP 2000-524452 19981210
 PRAI EP 1997-121829 A 19971211
 WO 1998-GB3687 W 19981210
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:113828 CAPLUS
 DN 130:192735
 TI Genetic method for controlling sprouting in potato tubers
 IN Jepson, Ian; Ebneith, Marcus; Sonnewald, Uwe
 PA Zeneca Limited, UK
 SO PCT Int. Appl., 89 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9906578	A2	19990211	WO 1998-GB2023	19980710
	WO 9906578	A3	19990422		
	W:		AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	AU 9882341	A1	19990222	AU 1998-82341	19980710
	EP 1017830	A1	20000712	EP 1998-932412	19980710
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
	BR 9811493	A	20000919	BR 1998-11493	19980710
PRAI	EP 1997-113118	A	19970730		
	WO 1998-GB2023	W	19980710		

L2 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2002 ACS
 AN 1998:717437 CAPLUS
 DN 130:105798
 TI Characterization of the ethanol-inducible alc gene expression system for transgenic plants
 AU Salter, Michael G.; Paine, Jacqueline A.; Riddell, Kay V.; Jepson, Ian; Greenland, Andrew J.; Caddick, Mark X.; Tomsett, A. Brian
 CS School of Biological Sciences, Donnan Laboratories, The University of Liverpool, Liverpool, L69 7ZD, UK
 SO Plant J. (1998), 16(1), 127-132
 CODEN: PLJUED; ISSN: 0960-7412
 PB Blackwell Science Ltd.
 DT Journal
 LA English
 RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2002 ACS
 AN 1997:234349 CAPLUS
 DN 126:221460
 TI Chemically inducible plant expression vectors encoding herbicide resistance in transgenic plants
 IN Jepson, Ian

PA Zeneca Limited, UK; Jepson, Ian
 SO PCT Int. Appl., 57 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9706269	A1	19970220	WO 1996-GB1883	19960802
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	CA 2224732	AA	19970220	CA 1996-2224732	19960802
	AU 9666278	A1	19970305	AU 1996-66278	19960802
	AU 711653	B2	19991021		
	EP 843730	A1	19980527	EP 1996-925925	19960802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1197483	A	19981028	CN 1996-197232	19960802
	BR 9609886	A	19990525	BR 1996-9886	19960802
	JP 11510695	T2	19990921	JP 1996-508224	19960802
	NO 9800450	A	19980401	NO 1998-450	19980202
PRAI	GB 1995-15941		19950803		
	WO 1996-GB1883		19960802		

L2 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2002 ACS
 AN 1994:5056 CAPLUS
 DN 120:5056
 TI Chemically inducible expression cassettes for plants
 IN Caddick, Mark Xavier; Greenland, Andrew James; Riddell, Kay Victoria; Schuch, Wolfgang Walter; Tomsett, Arthur Brian
 PA Zeneca Ltd., UK
 SO PCT Int. Appl., 63 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9321334	A1	19931028	WO 1993-GB764	19930413
	W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9339019	A1	19931118	AU 1993-39019	19930413
	EP 637339	A1	19950208	EP 1993-908031	19930413
	EP 637339	B1	20011031		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 207962	E	20011115	AT 1993-908031	19930413
PRAI	GB 1992-8117	A	19920413		
	GB 1992-8954	A	19920424		
	WO 1993-GB764	A	19930413		

L2 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2002 ACS
 AN 1991:75856 CAPLUS
 DN 114:75856
 TI The ethanol utilization regulon of *Aspergillus nidulans*: the **alcA**-**alcR** system as a tool for the expression of recombinant proteins
 AU Felenbok, Beatrice

CS Inst. Genet. Microbiol., Orsay, 91405, Fr.
SO J. Biotechnol. (1991), 17(1), 11-17
CODEN: JBITD4; ISSN: 0168-1656
DT Journal; General Review
LA English

=>

L1 ANSWER 1 OF 5 USPATFULL

ACCESSION NUMBER: 2000:128560 USPATFULL
TITLE: Modification of soluble solids in fruit using sucrose
phosphate synthase encoding sequence
INVENTOR(S): Shewmaker, Christine, Woodland, CA, United States
PATENT ASSIGNEE(S): Calgene LLC, Davis, CA, United States (U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6124528		20000926
	WO 9715678		19970501
APPLICATION INFO.:	US 1998-51341		19980406 (9)
	WO 1996-US17351		19961025
			19980406 PCT 371 date
			19980406 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-549016, filed on 27 Oct 1995, now patented, Pat. No. US 5914446 which is a continuation-in-part of Ser. No. US 1995-372200, filed on 12 Jan 1995, now patented, Pat. No. US 5750869		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nelson, Amy J.		
LEGAL REPRESENTATIVE:	Rae-Venter, Barbara, Wahlsten, JenniferRae-Venter Law Group, P.C.		
NUMBER OF CLAIMS:	49		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	30 Drawing Figure(s); 27 Drawing Page(s)		
LINE COUNT:	3242		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the expression of sucrose
phosphate synthase encoding sequences alone or in cooperation with sugar
metabolizing enzyme sequences to modify the soluble solids in plant
fruit tissue. Depending on whether sense or antisense sequences are
used, the method permits an increased or decreased sweetness in plant
fruit tissue, such as tomato fruit.

DETD . . . in certain tissues or under certain growth conditions, include
those from napin, seed or leaf ACP, zein, and the like. **Fruit**
specific promoters are also known, one such promoter is the E8
promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320; . . .
and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which
are incorporated herein by reference. An E8-SPS construct (**fruit**
-specific promoter) will express SPS in a **fruit-**
specific manner, whereby the levels of sucrose produced in the
fruit may be elevated. If coupled with antisense acid **invertase**
, the increase in sucrose would be maintained. This is a particular
issue in tomatoes where acid **invertase** present in the fruit
drives the production of glucose and fructose from sucrose.

DETD . . . by glucose and fructose being higher than sucrose. The SPS
activity and sugar content data indicate that the endogenous acid
invertase found in ripening tomato fruit contributed to the
observed increases in glucose and fructose. Acid levels in the
fruit-specific E8/SPS constructs also were observed,
correlating acid content to an increase in sugar content. These data
collectively show that SPS. . .

DETD . . . fruit. The data of Table 18 and 19 demonstrate that increased
SPS activity from transgenic expression in fruit by a **fruit**
specific promoter can produce an overall net increase in sugars
in the fruit. Due to the endogenous acid **invertase** found in
ripening tomato fruit, increases in sugar are found in glucose and
fructose.

CLM What is claimed is:

. . . its genome a first DNA construct comprising, as operably linked

components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and a second DNA construct comprising as operably linked components in. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said sucrose phosphate synthase and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of plant fruit is increased as compared to the. . .

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and a second DNA construct comprising, as operably linked components in. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby the amount of sweetness of said plant fruit is decreased as compared to the. . .

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit specific** promoter, and a DNA sequence encoding acid **invertase** to produce plant fruit, wherein both said first **fruit specific** promoter and said second **fruit specific** promoter function simultaneously, whereby the amount of sweetness of said plant fruit is increased as compared to plant fruit of. . .

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter, and a DNA sequence encoding sucrose phosphate synthase; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit specific** promoter and a DNA sequence encoding an acid **invertase**, wherein said first **fruit specific** promoter and second **fruit specific** promoter are functional in said plant fruit cell.

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and a second DNA construct comprising. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said polypeptide having sucrose phosphate synthase activity and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of a plant fruit is increased as compared to. . .

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and a second DNA construct comprising,. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby said sweetness of a plant fruit is decreased as compared to the sweetness of.

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter, and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit**

specific promoter and a DNA sequence encoding an acid **invertase**, wherein said first **fruit specific** promoter and said second **fruit specific** promoter are functional in said plant fruit cell.

48. A method of decreasing the amount of sweetness of a plant fruit, said method comprising: growing a plant which. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding a corn, potato, spinach, rice or sugar beet sucrose phosphate synthase; and a second. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby said amount of sweetness of a plant fruit is decreased as compared to the. . .

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding a corn, potato, spinach, rice or sugar beet sucrose phosphate synthase; and a second. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said sucrose phosphate synthase and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of a plant fruit is increased as compared to. . .

L1 ANSWER 2 OF 5 USPATFULL

ACCESSION NUMBER: 1999:69835 USPATFULL
TITLE: Soluble solids modification using sucrose phosphate synthase encoding sequences
INVENTOR(S): Shewmaker, Christine K., Woodland, CA, United States
PATENT ASSIGNEE(S): Calgene, LLC, Davis, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5914446		19990622
APPLICATION INFO.:	US 1995-549016		19951027 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-372200, filed on 12 Jan 1995, now patented, Pat. No. US 5750869		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		
ASSISTANT EXAMINER:	Nelson, Amy J.		
LEGAL REPRESENTATIVE:	Rae-Venter Law Group, P.C.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
LINE COUNT:	764		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the utilization of sucrose phosphate synthase encoding sequences to modify the soluble solids in plant sink tissue. The method permits an increase in the sweetness of tomato fruit.

SUMM . . . conditions, such as those from napin, seed or leaf ACP, the small subunit of RUBISCO, patatin, zein, and the like. **Fruit specific** promoters are also known, one such promoter is the E8 promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320; . . . and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which are incorporated herein by reference. An E8-SPS construct (**fruit -specific** promoter) will express SPS in a **fruit-specific** manner, whereby the levels of sucrose produced in the fruit may be elevated. If coupled with antisense **invertase**, the increase in sucrose would be maintained. This is a particular issue in tomatoes where acid **invertase** present in the fruit drives

the production of glucose and fructose from sucrose.
DETD . . . fruit. The data of table 4 and 5 demonstrate that increased SPS activity from transgenic expression in fruit by a **fruit specific** promoter can produce an overall net increase in sugars in the fruit. Due to the endogenous acid **invertase** found in ripening tomato fruit, increases in sugar are found in glucose and fructose.

L1 ANSWER 3 OF 5 USPATFULL

ACCESSION NUMBER: 1998:51938 USPATFULL
TITLE: Soluble solids modification using sucrose phosphate synthase encoding sequences
INVENTOR(S): Shewmaker, Christine K., Woodland, CA, United States
PATENT ASSIGNEE(S): Calgene, Inc., Davis, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5750869		19980512
APPLICATION INFO.:	US 1995-372200		19950112 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		
ASSISTANT EXAMINER:	Nelson, Amy J.		
LEGAL REPRESENTATIVE:	Rae-Venter Law Group, P.C.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	674		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the utilization of sucrose phosphate synthase encoding sequences to modify the soluble solids in plant sink tissue.

SUMM . . . conditions, such as those from napin, seed or leaf ACP, the small subunit of RUBISCO, patatin, zein, and the like. **Fruit specific** promoters are also known, one such promoter is the E8 promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320; . . . and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which are incorporated herein by reference. An E8-SPS construct (**fruit -specific** promoter) will express SPS in a **fruit-specific** manner, whereby the levels of sucrose produced in the fruit may be elevated. If coupled with antisense **invertase**, the increase in sucrose would be maintained. This is a particular issue in tomatoes where acid **invertase** present in the fruit drives the production of glucose and fructose from sucrose.

L1 ANSWER 4 OF 5 USPATFULL

ACCESSION NUMBER: 97:81131 USPATFULL
TITLE: Invertase genes and uses thereof
INVENTOR(S): Fitzmaurice, Leona C., San Diego, CA, United States
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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5665579		19970909
APPLICATION INFO.:	US 1994-245809		19940517 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-771331, filed on 4 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-660344, filed on 22 Feb 1991, now		

DOCUMENT TYPE: abandoned
 FILE SEGMENT: Utility
 PRIMARY EXAMINER: Granted
 ASSISTANT EXAMINER: Fox, David T.
 LEGAL REPRESENTATIVE: McElwain, Elizabeth F.
 NUMBER OF CLAIMS: Burns, Doane, Swecker & Mathis, L.L.P.
 EXEMPLARY CLAIM: 17
 NUMBER OF DRAWINGS: 17
 LINE COUNT: 14 Drawing Figure(s); 8 Drawing Page(s)
 3565

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Transgenic plants that are modified to produce fruits that have altered levels of soluble solids compared to non-transgenic species of the same species are provided. The transgenic plants are modified by introduction of DNA constructs that encode invertase operatively linked to DNA encoding regulatory regions that direct transcription of the DNA encoding invertase and to DNA encoding sequences that direct proper processing of the invertase through the secretory pathways of the plant and targeting of the invertase to the vacuole.

In particular, DNA constructs encoding tomato plant vacuolar invertase in operative linkage with a developmentally regulated promoter region are provided. Preferred regulatory and structural DNA is obtained from genomic DNA clones and cDNA clones encoding tomato fruit vacuolar invertases from the commercial tomato plant, *Lycopersicon esculentum*, and wild tomato plant, *Lycopersicon pimpinellifolium*.

SUMM Probes derived from the genomic DNA and cDNA, antibodies specific for tomato fruit invertase, and uses therefore, are also provided.

In certain embodiments, DNA sequences which are **fruit-specific** developmentally controlled regulatory sequences, other than **invertase** regulatory sequences, are provided. DNA constructs in which these regulatory regions are operably linked to genomic or cDNA encoding **invertase** are also provided. In the most preferred embodiments, the regulatory regions are selected such that **invertase** is expressed to a greater extent and earlier during fruit ripening than in non-transgenic plants.

DETD In addition, expression of the **invertase** gene in transgenic tomato plants may be accomplished, by operatively linking it to a developmentally regulated promoter. DNA encoding developmentally regulated promoter sequences obtained from the **invertase** structural gene and sequences that direct proper secretion and targeting of **invertase** have been identified and isolated, and DNA constructs containing DNA encoding **invertase** and **fruit-specific** genomic regulatory sequences are provided.

DETD Preferred promoter regions and other regulatory sequences are those that are **fruit specific** and developmentally controlled. A preferred regulatory region is one which would promote expression of recombinant **invertase** at an earlier stage of tomato fruit development than occurs when the subject plant does not express recombinant **invertase**. Other embodiments include regulatory sequences that promote expression throughout fruit development.

DETD TABLE I

Purification of **Invertase** from *L. esculentum* **Fruit**

	Specific	Activity	Yield
	Protein	Activity (.mu.moles/	
	(.mu.moles	min/mg	
Purification			
(mg)	/min.)	protein)	%

Crude homogenate
 8012 71416 8.91 100
 Ammonium sulfate
 8175 61560 7.53 . . .

DETD Since the promoter sequences are developmentally regulated and **fruit-specific**, tomato fruit tissues are assayed for **invertase** or GUS expression at various stages of fruit development. **Invertase** activity is determined according to the assay described in Example 1. GUS activity is determined according to the following protocol.

L1 ANSWER 5 OF 5 USPATFULL

ACCESSION NUMBER: 96:106598 USPATFULL
 TITLE: Invertase gene(s) and uses thereof
 INVENTOR(S): Butler, William O., San Diego, CA, United States
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 PATENT ASSIGNEE(S): The Salk Institute Biotechnology/Industrial Associates, Inc., La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5576428		19961119
APPLICATION INFO.:	US 1993-107748		19930820 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1991-771331, filed on 4 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-660344, filed on 22 Feb 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Moody, Patricia R.		
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis, LLP		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2498		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Transgenic plants that are modified to produce fruits that have altered levels of soluble solids compared to non-transgenic plants of the same species are provided. The transgenic plants are prepared by introducing into plants DNA constructs that encode invertase operatively linked to DNA encoding regulatory regions that direct transcription of the DNA encoding invertase and operatively linked to DNA encoding amino acids that direct proper processing of the invertase through the secretory pathways of the plant and targeting of the invertase to the vacuole.

In particular, DNA constructs encoding tomato plant vacuolar invertase in operative linkage with a developmentally regulated promoter region are provided. Preferred regulatory and structural DNA is obtained from genomic DNA clones and cDNA clones encoding tomato fruit vacuolar invertases from the commercial tomato plant, *Lycopersicon esculentum*, and wild tomato plant, *Lycopersicon pimpinellifolium*.

Probes derived from the genomic DNA and cDNA, antibodies specific for tomato fruit invertase, and uses therefor, are also provided.

SUMM Thus, the designed pattern of expression of the **invertase** gene in transgenic tomato plants may be accomplished by operatively linking it to a developmentally regulated promoter. DNA encoding developmentally regulated regulatory sequences obtained from the **invertase** gene and sequences that direct proper secretion and targeting of **invertase** have been identified and isolated, and DNA constructs containing DNA encoding **invertase** and **fruit-**

SUMM

specific genomic regulatory sequences are provided.

To accomplish the modification of **invertase** gene expression in tomato plants by transformation of tomato tissue with DNA encoding **invertase**, such DNA has been fused to developmentally responsive promoters. Preferred promoter regions and other regulatory sequences are those that are **fruit specific** and developmentally controlled. Such preferred regulatory regions include those that promote expression of recombinant **invertase** at an earlier stage of tomato fruit development than occurs when the subject plant does not express recombinant **invertase**. Other embodiments include regulatory sequences that promote expression throughout fruit development.